

## **Sacramento-San Joaquin Delta Report to Congress**

### **EXECUTIVE SUMMARY**

As the hub of California's two largest water distribution systems, the Sacramento-San Joaquin Delta (Delta) supplies drinking water to more than 22 million people and irrigation water to millions of acres of some of the world's most highly productive agricultural land. It is a haven for 750 plant and animal species and home to hundreds of thousands of people.

Yet, this valuable national resource is inadequately protected by an extremely fragile levee system that threatens to fail at any time, even under fair weather conditions. Unlike other levee systems that protect against high water events, the Delta's maze of mostly non-Federal levees must work all day, every day, to keep water from inundating people living below sea level. These hardworking levees are part of the State-wide water conveyance system, but have suffered as local reclamation districts struggle to properly maintain and improve them.

Recognizing the threat of serious levee failure and its widespread effects, Congress directed the U.S. Army Corps of Engineers (USACE) last November to deliver a report that identifies and prioritizes potential levee stability projects in the Delta to be carried out through 2010 using up to the authorized \$90 million to be appropriated for the Federal share of project costs. To quickly identify critical needed projects with active non-Federal support, the USACE invited Delta stakeholders to submit project proposals with letters stating their willingness to participate as cost-sharing sponsors. In response, Delta area reclamation districts and flood management agencies submitted 54 project proposals totaling more than \$1 billion in estimated costs.

The CALFED Bay-Delta Authorization Act directed USACE to prioritize potential projects in this report. The proposals were evaluated according to how well they met USACE environmental, economic, and other implementation criteria. The short-term strategy is to move quickly to construction on high priority levee reconstruction projects identified in this report. The authorized \$90 million of Federal funds, plus the required non-Federal funds, will be an important first step to address Delta-wide levee system needs.

The long-term strategy will be developed in the cost-shared Sacramento-San Joaquin Delta Islands and Levees Feasibility Study. The study's scope will assess existing and future flood risks in the Delta area, as well as ecosystem restoration, recreation, and water supply needs and develop a comprehensive vision and roadmap for future Federal participation in the Delta. The plan, in conjunction with California Department of Water Resources' Delta Risk Management Study, will address remaining levee stability work beyond the \$90 million Federal effort authorized in the CALFED Act.

This report is the first step in a multi-year effort to address levee stability concerns in the Delta region. The prioritized list represents levee repair projects that could be accomplished within the funding and procedural limits of the CALFED Act. Many more potential projects were identified than could be accomplished within the limits of the CALFED authorization. Therefore, an additional list has been provided to include all of the identified projects in prioritized order, in the event that either the authorization is modified or non-Federal implementation is pursued.

**Prioritization of Proposals for Delta Levees Report to Congress - DRAFT**

**List 1: Proposals with Submitted Cost Less Than Section 205 Total Cost Limit (\$11 Million)**

<i>Priority Group</i>	<i>Potential Sponsor</i>	<i>Description</i>	<i>Submitted Cost</i>	<i>Statement of Intent?</i>	<i>Cost &lt;\$11 Million?</i>	<i>Positive Factors</i>	<i>Negative Factors</i>	<i>Priority</i>	<i>Comments</i>
A1	Brannan-Andrus Levee Maintenance District	Levee Improvements	\$5M	Y	Y	Existing population and development (Isleton), State Highway 12		H	
	RD 830 - Jersey Island	Levee Improvements	\$7M	Y	Y	Western island, Utility infrastructure, Adjacent to developed islands		H	
	RD 1607 - Van Sickle Island	Levee Improvements	\$0.75M	Y	Y	Environmental benefits. Important habitat, Salinity gates		H	
	RD 2059 - Bradford Island	Levee Improvements	\$6M	Y	Y	Western Island, Important habitat		H	
	San Joaquin County Office of Emergency Services (flood contingency)	Flood contingency and evacuation engineering	\$0.73M	Y	Y	Non-structural floodplain Management alternative		H	
A2	RD 2025 - Holland Tract	Levee Improvements	\$2.8M	Y	Y	Western island. Cost. effective		M	
	RD 2028 - Bacon Island	Levee Improvements	\$9.5M	Y	Y	Water quality importance		M	
	RD 2033 - Brack Tract	Levee Improvements	\$11M	Y	Y	Ecological reserve		M	
	San Joaquin County Office of Emergency Services (wastewater facility)	Stockton Regional Wastewater Control Facility flood protection	\$3.7M	Y	Y	Non-structural floodproofing alternative	Would not eliminate need for levees	M	Replacement of existing headworks may be ineligible for funding
C1	RD 554 - Walnut Grove	Levee Improvements	\$0.1M	Y	Y	Nat'l Reg historic site, Existing population and development	Estimated costs too low to be efficient as a Corps project	1	Project might be cost-effective for Corps participation if scale is Increased
	RD 2026 - Webb Tract #3	Restore dredge cut	\$6M	Y	Y	Environmental benefits	High cost for env. benefit. Stability benefit uncertain	1	Benefits separate from Webb Tract #1&2 Levee Improvements
	RD 2065 - Veale Tract	Levee Improvements	\$4.9M	Y	Y	Agricultural benefits	Potential floodplain development	1	
	RD 2139 - Can Can/Greenhead	Levee Improvements	\$0.38M	Y	Y	Important habitat	Estimated cost Is too low to be efficient as a Corps project	1	Project might be cost-effective for Corps participation if scale is Increased
B1	RD 369 Town of Locke	Levee Improvements	\$2.9M	N	Y	Historic significance. At risk population		H	National Register historic site and National Historic Landmark
						Water Q/S Importance. Infrastructure,			

	RD 2040 - Victoria Island	Levee Improvements	\$6.3M	N	Y	Cost-effective		H	
	RD 2072 - Woodward Island	Levee Improvements	\$10.5M	N	Y	Water conveyance EBMUD aqueduct		H	
B2	Drexler Tract	Levee Improvements	\$1.1M	N	Y	State Highway 4		M	
	RD 684 - Lower Roberts Island	Levee Improvements	\$3.1M	N	Y	Utility infrastructure, Cost-effective		M	
	RD 2023 - Venice Island	Levee Improvements	\$5. 1M	N	Y	Water Q/S Importance. Infrastructure. Cost-effective		M	
	RD 2038 - Lower Jones Tract	Levee Improvements	\$7.5M	N	Y	Agricultural benefits		M	
	RD 2090 - Quimby Island	Levee Improvements	\$11M	N	Y	Agricultural benefits		M	
	RD 2111 - Dead Horse Island	Levee Improvements	\$0.67M	N	Y	Agricultural benefits		M	
	RD 2117 - Coney Island	Levee Improvements	\$1.8M	N	Y	Water conveyance		M	
C2	Association of Bay Area Governments (ABAG)	Investigation of: flood risks to Bay Area Infrastructure; use of dredged material for levee repairs; mitigation areas for levee repairs and non-structural flood control remedies	\$1.4M	N	Y		Study only	1	Topics are expected to be addressed by Delta Islands & levees feasibility study and Delta LTMS. ABAG could participate as an additional study co-sponsor.
	RD 307 Lisbon	Sacramento River bank protection	\$2.7M	N	Y		Outer fringe of Delta	1	Appears to be part of Sacramento River Bank Protection Project
	RD 2024 - Orwood Palm Tract	Levee Improvements	\$7.9M	N	Y		Potential floodplain development	1	
	RD 2113 - Fay Island	Levee Improvements	\$0.42M	N	Y	Agricultural benefits	Single primary Beneficiary/owner	1	
	RD 2119- Wright Elmwood Tract	Levee Improvements	\$3.3M	N	Y	Agricultural benefits	Potential floodplain development	1	
	Shin Kee Tract	Levee Improvements	\$10.9M	N	Y		Single primary beneficiary/owner	1	

**Prioritization of Proposals for Delta Levees Report to Congress**

**List 2: All Submitted Proposals (No Section 205 Cost Limit)**

<b>Priority Group</b>	<b>Potential Sponsor</b>	<b>Description</b>	<b>Submitted Cost</b>	<b>Statement of Intent?</b>	<b>Cost &lt;\$11 Million?</b>	<b>Positive Factors</b>	<b>Negative Factors</b>	<b>Priority</b>	<b>Comments</b>
A1	Brannan-Andrus Levee Maintenance District	Levee Improvements	\$5M	Y	Y	Existing population and development (Isleton). Slate Highway 12		H	
	California Department of Water Resources and The Nature Conservancy	McCormack-Williamson Tract flood control and ecosystem restoration improvements	\$19.5M	Y	N	Innovative solution, Interstate 5, Environmental benefits		H	
	RD 756 - Bouladin Island	Levee Improvements	\$14M	Y	N	Slate Highway 12, Water conveyance		H	
	RD 830 - Jersey Island	Levee Improvements	\$7M	Y	Y	Western Island, Utility Infrastructure, Adjacent to developed Islands		H	
	RD 1607- Van Sickle Island	Levee Improvements	\$0.75M	Y	Y	Environmental benefits, Important habitat Salinity gates		H	
	RD 2059 - Bradford Island	Levee Improvements	\$6M	Y	Y	Western Island, Important habitat		H	
	San Joaquin County Office of Emergency Services	Flood contingency and evacuation engineering	\$0.73M	Y	Y	Non-structural floodplain management alternative		H	
A2	Bethel Island Municipal Improvement District (BIMID)	Levee Improvements	\$32.6M	Y	N	Western Island, existing population and development	Potential floodplain development	M	
	RD 2025 - Holland Tract	Levee Improvements	\$2.8M	Y	Y	Western Island, Cost-effective		M	
	RD 2026 - Webb Tract #1 & 2	Levee Improvements	\$17M	Y	N	Western Island		M	
	RD 2028 - Bacon Island	Levee Improvements	\$9.5M	Y	Y	Water quality importance		M	
	RD 2029 - Empire Tract	Levee Improvements	\$21.7M	Y	N	Agricultural benefits		M	
	RD 2033 - Brack Tract	Levee Improvements	\$11M	Y	Y	Important habitat Ecological reserve		M	
	RD 2037 - Rindge Tract	Levee Improvements	\$41M	Y	N	Agricultural benefits		M	
	RD 2041 - Medford Island	Levee Improvements	\$19.2M	Y	N	Important habitat		M	
	RD 2044 - King Island	Levee Improvements	\$12.7M	Y	N	Agricultural benefits	Potential floodplain development	M	
	RD 2086 - Canal Ranch	Levee Improvements	\$21.7M	Y	N	Agricultural benefits		M	
	San Joaquin County Office of Emergency Services	Stockton Regional Wastewater Control Facility flood protection	\$3.7M	Y	Y	Non-structural floodproofing alternative	Would not eliminate need for levees	M	Replacement of existing headworks may be ineligible for funding
						Nat'l Reg historic site,	Estimated cost is too		Project might be cost-effective for Corps

C1

RD 554 - Walnut Grove	Levee Improvements	\$0.1M	Y	Y	Existing population and development	low to be efficient as a Corps project	L	participation if scale is Increased. Possibly combine with RD 369.
RD 1608 - Lincoln Village West	Dredging for maintenance and emergency access to levee	None	Y	N/A		No cost estimate	L	Appears to be a temporary measure Primarily for purposes of maintenance
RD 2026 Webb Tract #3	Restore dredge cut	\$6M	Y	Y	Western Island, Environmental benefits	High cost for env. benefit, Stability benefit uncertain	L	Benefits separate from Webb Tract #1&2
RD 2064 - River Junction	Replace drainage pumps, dredging to reduce flow restrictions and levee improvements	None	Y	N/A		No cost estimate	L	
RD 2065 - Veale Tract	Levee Improvements	\$4.9M	Y	Y	Agricultural benefits	Potential floodplain development	L	
RD 2074 Brookside Estates	Levee Improvements	None	Y	N/A		No cost estimate	L	
RD 2130 - Honker Bay	Levee Improvements	None	Y	N/A	Important habitat	No cost estimate	L	
RD 2139 - Can Can/Greenhead	Levee Improvements	\$0.38M	Y	Y	Important habitat	Estimated cost is too low to be efficient as a Corps project	L	Project might be cost-effective for Corps participation if scale is increased
South Delta Water Agency	Dredging and Stark Trail levee Improvements	\$60M	Y	N	Water conveyance	Potential floodplain development, Very high cost	L	
Suisun Resource Conservation District	Suisun Marsh levee improvements	>\$65M	Y	N	Important habitat	No current cost estimate for levee Improvements, Very high cost anticipated	L	Cost estimate based on 1982 USACE report
Yolo County Planning, Resources and Public Works Department	Sacramento River Levee Integrity Investigation	\$15M	Y	N		Study only	L	Appears to be part of Sacramento River Bank Protection Project

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B1	RD 369 - Town of Locke	Levee Improvements	\$2.9M	N	Y	Historic significance, At-risk population		H	National Register historic site and National Historic Landmark
	RD 548 -Terminus Tract	Levee Improvements	\$39.3M	N	N	State Highway 12, Interstate 5, existing population and development		H	
	RD 563 - Tyler Island	Levee Improvements	\$91M	N	N	Water conveyance, Important habitat		H	
B2	RD 1601 - Twitchell Island	Levee Improvements	\$30.4M	N	N	Western island, Important habitat		H	
	RD 2040 - Victoria Island	Levee Improvements	\$6.3M	N	Y	Water Q/S Importance, Infrastructure, Cost-effective		H	
	RD 2072 - Woodward Island	Levee Improvements	\$10.5M	N	Y	Water conveyance, EBMUD aqueduct		H	
	Drexler Tract	Levee Improvements	\$1.1M	N	Y	State Highway 4		M	
	RD 17 - Mossdale Tract	Levee Improvements	\$59.5M	N	N	existing population and development, infrastructure	High cost vs. scope, Seismic upgrade uncertainty	M	
	RD 501 - Ryer Island	Levee Improvements	\$31.35M	N	N	State Highway on levee	Seismic upgrade uncertainty	M	
	RD 684 - Lower Roberts Island	Levee Improvements	\$3.1M	N	Y	Utility Infrastructure, Cost-effective		M	
	RD 2023 Venice Island	Levee Improvements	\$5.1M	N	Y	Water Q/S Importance, Infrastructure, Cost-effective		M	
	RD 2027 - Mandeville Island	Levee Improvements	\$16.2M	N	N	Agricultural benefits		M	
	RD 2038 - Lower Jones Tract	Levee Improvements	\$7.5M	N	Y	Agricultural benefits		M	Appears to be part of Sacramento River Bank Protection Project
	RD 2090 - Quimby Island	Levee Improvements	\$11M	N	Y	Agricultural benefits		M	
	RD 2111 - Dead Horse Island	Levee Improvements	\$0.67M	N	Y	Agricultural benefits		M	
	RD 2117- Coney Island	Levee Improvements	\$1.8M	N	Y	Water conveyance		M	
	Association of Bay Area Governments (ABAG)	Investigation of: flood risks to Bay Area Infrastructure; Use of dredged material for levee repairs; mitigation areas for levee repairs and non-structural flood control remedies	\$1.4M	N	Y		Study only	L	Topics are expected to be addressed by Islands & Levees feasibility study and Delta LTMS. ABAG could participate as an additional study co-sponsor
	RD 307 - Lisbon	Sacramento River bank protection	\$2.7M	N	Y		Outer fringe of Delta, Part of Sac River Bank Protection Project	L	

C2	RD 799 - Hotchkiss Tract	Installation of sheet pile	\$50.7M	N	N	Western Island, existing population and development	Potential floodplain development, High cost	L	
	RD 800 - Byron Tract	Levee Improvements	\$20M	N	N	Existing population and development	Potential floodplain development	L	
	RD 2024 - Orwood Palm Tract	Levee Improvements	\$7.9M	N	Y		Potential floodplain development	L	
	RD 2113 - Fay Island	Levee Improvements	\$0.42M	N	Y	Agricultural benefits	Single primary Beneficiary/owner	L	
	RD 2119 - Wright Elmwood Tract	Levee Improvements	\$3.3M	N	Y	Agricultural benefits	Potential floodplain development	L	
	Shin Kee Tract	Levee Improvements	\$10.9M	N	Y		Single primary Beneficiary/owner	L	
	Solano County Dept. of Resource Management	Collinsville levee Improvements	None	N	N/A	existing population and development	No cost estimate	L	